

## ABSTRACT:

Disclosed is a frequency-domain decision feedback equalizing method and device for single carrier modulation, preferably for use in a broadband communication system, wherein in a first section a fast Fourier transformation is performed on a first vector of signals inputted, and as a result a second vector of signals is provided, a feed forward  
5 equalization is performed by multiplying each of the components of said second vector of signals with equalization parameters, and as a result a third vector of signals is provided, an inverse fast Fourier transformation is performed on said third vector of signals, and as a result a fourth vector of signals is provided, and an output signal of said first section is provided on the basis of said fourth vector of signals; and in a second section a linear feedback filtering of  
10 a signal derived from an output signal of said second section is performed, and a filtered signal is provided, said filtered signal is added to said output signal of said first section, and an added signal is provided, and said output signal of said second section is generated by extracting samples from said added signal.

15 Fig. 3